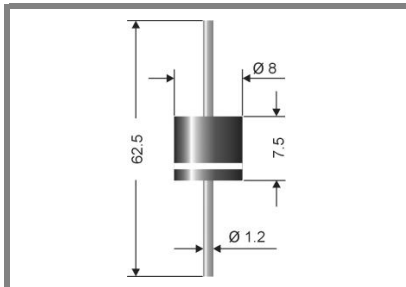


SBH2020 ... SBH2040



Axial lead diode

Schottky barrier high temperature rectifiers diodes

SBH2020 ... SBH2040

Forward Current: 20 A

Reverse Voltage: 20 to 40 V

Preliminary Data

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0

Mechanical Data

- Plastic case: 8 x 7,8 [mm]
- Weight approx.: 1,5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 5000 pieces per reel

1) Valid, if leads are kept at ambient temperature at a distance of 6 mm from case

2) $I_F = 5 \text{ A}$, $T_J = 25 \text{ °C}$

3) $T_A = 25 \text{ °C}$

4) $T_J \leq 200 \text{ °C}$ ($V_R \leq 50\% V_{RRM}$)

Type	Repetitive peak reverse voltage	Surge peak reverse voltage	Max. reverse recovery time	Max. forward voltage
	V_{RRM} V	V_{RSM} V	$I_F = - \text{A}$ $I_R = - \text{A}$ $I_{RR} = - \text{A}$ t_{rr} ns	$V_F^{(2)}$
SBH 2020	20	20	-	0,45
SBH 2030	30	30	-	0,45
SBH 2040	40	40	-	0,45

Absolute Maximum Ratings $T_A = 25 \text{ °C}$, unless otherwise specified

Symbol	Conditions	Values	Units
I_{FAV}	Max. averaged fwd. current, R-load, $T_A = 75 \text{ °C}^{(1)}$	20	A
I_{FRM}	Repetitive peak forward current $f > 15 \text{ Hz}^{(1)}$	70	A
I_{FSM}	Peak forward surge current 10 Hz half sinus-wave $^{(3)}$	400	A
i^2t	Rating for fusing, $t < 10 \text{ ms}^{(3)}$	800	A ² s
R_{thA}	Max. thermal resistance junction to ambient $^{(1)}$	12	K/W
R_{thL}	Max. thermal resistance junction to terminals $^{(4)}$	-	K/W
T_j	Operating junction temperature	- 50 ... + 175	°C
T_s	Storage temperature	- 50 ... + 175	°C

Characteristics $T_A = 25 \text{ °C}$, unless otherwise specified

Symbol	Conditions	Values	Units
I_R	Maximum leakage current, $T_j = 25 \text{ °C}$; $V_R = V_{RRM}$	<100	µA
	$T_j = \text{°C}$; $V_R = V_{RRM}$		
C_j	Typical junction capacitance (at MHz and applied reverse voltage of V)	-	pF
Q_{rr}	Reverse recovery charge ($U_R = V$; $I_F = A$; $di_F/dt = A/ms$)	-	µC
E_{RSM}	Non repetitive peak reverse avalanche energy ($I_R = \text{mA}$; $T_j = \text{°C}$; inductive load switched off)	-	mJ

